ABSTRACT OF THE DISCLOSURE

A method and device for frame sync detection using signal combining and correlation. The method comprises the steps of despreading PN coded signals to provide in-phase I_1-I_n, and quadrature phase Q_1-Q_n signals, wherein each I_1-I_n and each Q_1-Q_n signal contains at least one sync bit and $n \geq 2$. The at least one sync bit from each I_1-I_n, and quadrature phase Q_1-Q_n signals are summed to form sums I_{s1} and Q_{s1}, respectively. The next step provides a reference sync having at least one bit and compares each sum I_{s1} and Q_{s1} with the at least one reference bit. The results of each I_{s1} and Q_{s1} comparison are accumulated so as to form two accumulates, I_A and Q_A, respectively. Each accumulate I_A and Q_A, is squared to form I_A^2 and Q_A^2 from which the sum I_A^2 and Q_A^2 is formed. The sum $I_A^2 + Q_A^2$ is compared with a predetermined threshold and as a result of the comparison a determination of whether frame sync has been achieved is made.